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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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Office Action Summary**Application No.**

09/896,244

Applicant(s)

DUVVURU, SREERAM

Examiner

DOHM CHANKONG

Art Unit

2452

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 October 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/C2.06)
Paper No(s)/Mail Date _____

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

This final rejection is in response to Applicant's amendment and arguments filed on 10/26/2010. Applicant amends claims 1, 2, 6-20, and 24-27. Accordingly, Applicant presents claims 1-27 for further examination.

I. RESPONSE TO ARGUMENTS

A. Applicant's amendment of the independent claims does not overcome the Patel, Win, and Lupu references.

Applicant amends the claims to include limitations specifying that the request is a request for service from a client and the request includes an encoding specifies the requested service. These limitations do not overcome Patel because Patel discloses packets that include an encoding for a request service.

Specifically, Patel discloses a packet comprising a service option label [Fig. 3 «item 88»]. Patel describes this service option as a label "includ[ing] a type of call" [column 11 «lines 52-53»]. Patel further describes that a type of call may refer to whether the call is voice or data [column 8 «line 23»]. The examiner interprets Patel's service option encoded in the packet as the claimed encoding which specifies the requested service where Patel's type of call is analogous to a requested service (i.e., a user is requesting a voice call or a data call).

B. Applicant's argument that Win and Lupu fail to teach the features directed to the current user role is not persuasive.

Applicant argues that Win does not disclose an encoding specifying a current user role because Win discloses providing a list of user roles. Applicant's argument is not persuasive because Applicant's claim that precludes the possibility that a user has multiple roles at the same

time as is taught in Win. Applicant's claim merely requires establishing a quality of service context for a specified user role but does not require that the user only be assigned a single user role.

Moreover, Win discloses that a user may be assigned "one or more roles" [column 8 «lines 51-52»]. Thus, even if Applicant's claim required interpreting associating a single role to a user, Win would still teach such a feature.

Applicant further argues that Win and Lupu fail to disclose establishing a quality of service context based on the specified current user role. Specifically, Applicant argues that Lupu is directed to the user roles and policies for specifying and managing a virtual enterprise which has nothing to do with the limitations of Applicant's claim.

Applicant's arguments are not persuasive because rejection relies on Patel for requests for service where the request includes an encoding specifying a requested service. Win and Lupu are both directed to role-based accessing of resources where the roles may relate to an organizational structure [Win, abstract | column 4 «lines 44-49» & Lupu, pg. 7, ¶3.2"]. Lupu then discloses establishing a quality of service context based on the role. The rejection then relies on Win and Lupu for modifying that request to include a current user role and establishing a quality of service context based on the role.

C. Conclusion

For the foregoing reasons, Applicant's arguments are not persuasive and the amendment does not overcome the cited prior art references. Therefore, the rejection as set forth in the previous action is maintained.

II. CLAIM REJECTIONS - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
 2. Ascertaining the differences between the prior art and the claims at issue.
 3. Resolving the level of ordinary skill in the pertinent art.
 4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
- A. Claims 1, 2, 4, 5, 7, 9, 10, 11, 13, 14, 16, 18-20, 22, 23, 25, and 27 are rejected under 35 U.S.C. §103(a) as being unpatentable over Patel et al, U.S. Patent No. 6,865,185 ["Patel"], in view of Win et al., U.S. Patent No. 6,453,353 ["Win"], in further view of Lupu et al., "Use of Roles and Policies for Specifying and Managing a Virtual Enterprise," Research Issues on Data Engineering: Information Technology for Virtual Enterprises, pgs. 72-79.**

All citations are to Patel unless otherwise expressly noted.

Claims 1, 10, and 19

As to claim 1, Patel as modified by Win discloses a computer-implemented method for providing differentiated quality of service in an application server, comprising:

a server system receiving a request for service from a client [See Response to Arguments, Section IA | Figure 1 | column 12 «lines 6-10»], wherein said request includes an encoding specifying a current user role [Win, column 6 «lines 44-48 and 58-65»: user sending a request

with a cookie identifying the user roles to the server] and a requested service [See Response to Arguments | Fig. 3 «item 88»]; and

in response to receiving the request for service:

accessing pre-determined policy data [column 3 «line 62» to column 4 «line 2» | column 7 «lines 20-26» : inserting labels that indicate FEC where the FEC identifies QoS/policy parameters | column 13 «lines 46-61» : policy base maintaining QoS policies subscribed to by the end user];

establishing a quality of service context based on the specified current user role included in said request and said policy data [column 7 «lines 60-65» | column 12 «lines 6-11» : inserting labels that identify QoS into the packet based on the user identifier & Win, column 6 «lines 44-48 and 58-65» & Lupu, pg. 2, § 2.1: ODP Definition of a role: “A role type...may include additional constraints on the behavior, such as policy or Quality of Service (QoS) statements”]; and

propagating said quality of service context with said request in the server system, wherein said propagating comprises sending data indicating the quality of service context with the request [column 3 «line 62» to column 4 «line 2»].

As noted above, Patel does not disclose (1) a server system receiving a request that includes a current user role and (2) establishing a quality of service context based on the current user role. However, both features were well known in the art at the time of Applicant's invention as evidenced by Win and Lupu.

1. Win discloses a server receiving a request that includes a current user role.

Like Patel, Win is directed to providing applying specific policies for access to resources based on user information [Patel, Fig. 7 | column 13 «lines 46-61» & Win, column 5 «lines 44-46»] However, Win further discloses a user request that includes a current user role.

It would have been obvious to one of ordinary skill in the art to have modified Patel's service requests to include a current user role as taught by Win. Such a modification is an example of simple substitution of one known element (Win's user request that contains a role cookie) for another (Patel's user request) to obtain predictable results (Patel's system modified to directly receive user roles to identify which policies to apply to the request, see Win, column 5 «lines 44-54»). See MPEP §2143.

2. Win and Lupu disclose establishing a quality of service context based on the current user role.

While Patel discloses establishing a quality of service context based on policy data, Patel does not disclose the use of a current user role. As discussed above, Win discloses a client submitting a request that includes a current user role to a server. However, Patel and Win do not expressly disclose establishing a quality of service context based on the current user role.

In the same field of invention as Win, Lupu is directed to resource management of a virtual enterprise [Win, abstract: "The registry server controls...a data model...the describes the user, the resources, roles of the user, and functional groups in the enterprise that are associated with the user" & Lupu, pg. 1, § 1: Introduction]. In both Win and Lupu, the roles may be used to impose restraints on the user's behavior.

Lupu further discloses that roles are used to establish a particular QoS context using QoS statements associated with the particular role. Thus, the combination of Win and Lupu disclose

the inclusion of user roles within a request to a server to access particular resources (from Win) and the use of the user role to establish particular QoS restraints (e.g., "requirements, capabilities, contracts in terms of error rates, throughputs, delay, etc.") on the user's actions (from Lupu).

It would have been obvious to one of ordinary skill in the art to have modified Patel's QoS system to include the user role functionality described above from Win and Lupu. Such a modification would have provided an improvement to Patel's system because incorporating role-based QoS (as taught in Win and Lupu) provides a more flexible and extensible way to control QoS in a network [see for example Win, abstract | column 2 «lines 26-28»: the user role allows flexibility and extensibility in adding users to the system].

As to claims 10 and 19, they are merely directed to a computer-readable storage medium and system directed to performing the steps of the method of claim 1. Therefore claims 10 and 19 are rejected for at least the same reasons set forth for claim 1.

Claims 2, 11, and 20

As to claim 2, Patel as modified by Win and Lupu discloses said information further indicates at least one of a user identity [Figure 1 | column 12 «lines 6-10»: each packet containing a flow identifier that indicates a user identity] or a time constraint.

As to claims 11 and 20, they are merely directed to a computer-readable storage medium and system directed to performing the steps of the method of claim 2. Therefore claims 11 and 20 are rejected for at least the same reasons set forth for claim 2.

Claims 4, 13, and 22

As to claim 4, Patel as modified by Win and Lupu discloses said establishing a quality of service context is completed at an ingress point [column 6 «lines 39-42»]. As to claims 13 and 22, they are merely directed to a computer-readable storage medium and system directed to performing the steps of the method of claim 4. Therefore claims 13 and 22 are rejected for at least the same reasons set forth for claim 4.

Claims 5, 14, and 23

As to claim 5, Patel as modified by Win and Lupu discloses said ingress point is at least one of a web server or a protocol manager service within said server system [column 6 «lines 42-44»]. As to claims 14 and 23, they are merely directed to a computer-readable storage medium and system directed to performing the steps of the method of claim 5. Therefore claims 14 and 23 are rejected for at least the same reasons set forth for claim 5.

Claims 7, 16, and 25

As to claim 7, Patel as modified by Win and Lupu discloses propagating includes inserting said quality of service context adjacent to at least one of a security and transaction context [Figure 3 «item 60»: inserting the labels in the header of the packet adjacent to transaction contexts]. As to claims 16 and 25, they are merely directed to a computer-readable storage medium and system directed to performing the steps of the method of claim 7. Therefore claims 16 and 25 are rejected for at least the same reasons set forth for claim 7.

Claims 9, 18, and 27

As to claim 9, Patel as modified by Win and Lupu discloses a request manager service dispatching said request including said quality of service context to a software component in a

plurality of software components based on said quality of service context [Figure 3 «items 32, 36»: the flow manager dispatching packets to various virtual groups based on the QoS context]. As to claims 18 and 27, they are merely directed to a computer-readable storage medium and system directed to performing the steps of the method of claim 9. Therefore claims 18 and 27 are rejected for at least the same reasons set forth for claim 9.

B. Claims 3, 12, and 21 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Patel and Win and Lupu, in further view of Ayyagari et al, U.S. Patent Publication No. 2001|0024434 [“Ayyagari”].

As to claims 3, 12, and 21, Patel as modified by Win, Lupu, and Ayyagari discloses said quality of service context includes information indicating a service class [column 8 «lines 26-28»] and a deadline [Ayyagari, 0006: execution of a desired task in a specified time period | 0048: time constraint].

It would have been obvious to one of ordinary skill in the art to have modified Patel to include the deadline feature taught by Ayyagari. Such a modification is an example of using a known technique (including information indicating a deadline for executing a task) to improve similar systems (both Patel and Ayyagari are directed to QoS systems) in the same way (Ayyagari discloses that deadlines in requests are necessary to indicate a “specified time period” for the execution of a desired task). See MPEP §2143.

C. Claims 6, 15, and 24 are rejected under 35 U.S.C. §103(a) as being unpatentable over Patel and Win and Lupu, in view of Zara et al, U.S. Patent No. 7.206.848 [“Zara”].

As to claim 6, Patel as modified by Win and Lupu does not expressly disclose propagating the same quality of service context with a subsequent request. However, such a feature was well known in the art at the time of Applicant’s invention. For example, Zara

discloses attaching the same quality of service context ("tag") with a subsequent request related to the first request [column 7 «lines 58-61»]. It would have been obvious to one of ordinary skill in the art to have modified Patel to include Zara's teachings. One would have been motivated to include the same tag in subsequent requests to insure that the requests involved in the same session or transaction receive the QoS.

As to claims 15 and 24, they are merely directed to a system that performs the steps of the method of claim 6. Therefore claims 15 and 24 are rejected for at least the same reasons set forth for claim 6.

D. Claims 8, 17, and 26 are rejected under 35 U.S.C. §103(a) as being unpatentable over Patel and Win and Lupu, in view of Vange, U.S. Patent Publication No. 20020059170.

As to claim 8, while Patel discloses dispatching requests including a quality of service context, Patel does not expressly disclose a load balancing service that dispatches the requests to an application server. However, such a feature was well known in the art at the time of Applicant's invention. For example, Vange discloses the claimed feature. Like Patel, Vange discloses a system whereby a gateway provides clients access to the Internet [Patel, Figure 1 & Vange, Figure 2]. Vange discloses a load balancing service that dispatches requests to an application server in a plurality of application servers, based on said quality of service context [0094 | Vange's claim 1 : where the gateway load balances by "selecting amongst servers of redundant resources a particular server"]. It would have been obvious to one of ordinary skill in the art to have modified Patel to include Vange's load balancing capability. One would have been motivated to add such a feature into Patel to insure that loads are balanced equally between the servers.

As to claims 17 and 26, they are merely directed to a system that performs the steps of the method of claim 8. Therefore claims 17 and 26 are rejected for at least the same reasons set forth for claim 8.

III. CONCLUSION

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DOHM CHANKONG whose telephone number is (571)272-3942. The examiner can normally be reached on Monday to Friday [10 am - 6 pm].

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thu Nguyen can be reached on (571)272-6967. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/DOHM CHANKONG/
Primary Examiner, Art Unit 2452